

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

LIBRARY
RECEIVED

SAFEGUARDING YOUR FOOD AND DRUG SUPPLIES - NO. 50

★ JUL 22 1931 ★

U. S. Department of Agriculture

A radio talk by W. W. Vincent, chief of the western district, Food and Drug Administration, U. S. Department of Agriculture, delivered through Station KGO, San Francisco, and associated National Broadcasting Company station, at 12.45 P.M., July 23, 1931.

MR. LAMB: Today W.W. Vincent, chief of the western district of the Department's Food and Drug Administration, brings you his 50th talk on the subject of "Safeguarding the Nation's Food and Drug Supplies." He says that today he will speak upon the subject of drugs. What phase of the drug business, Mr. Vincent, did you aim to speak about today?

MR. VINCENT: Well, I had intended to speak of cathartics. They are sold in large amounts. But I have just been glancing over some drug journals and now I don't know whether to talk about advertising or cathartics.

MR. LAMB: What is that paper you have there? A dissertation on the subject?

MR. VINCENT: No, that's a clipping commenting upon an article appearing in Printers' Ink, a journal which, I believe, caters to advertisers. It tends to criticize the manufacturers who seize upon one scientific fact around which to build an advertising campaign. The magazine goes after scientists who lend their names to various endorsements. Here's an interesting paragraph. Listen:

"Cancer can't be cured with face creams. Divorce evils can't be remedied with face powders. Passionate perfumes and wedded bliss aren't synonymous. Acrimonious advertising isn't the road to public belief, and pseudo-scientific claims make a weak foundation for a lasting business."

That makes it seem that I have been giving pretty good advice when I told you folks to put your whole faith only in statements upon the labels of foods and drugs and in such advertising material as actually accompanies the individual packages.

MR. LAMB: Well, what's that other clipping you have?

MR. VINCENT: That's a cathartic advertisement--a nationally advertised article. Look at the volume they claim for their product. They say: "Over twenty-six million boxes of those little Blank Tablets were sold in 1930. That's popularity for you." The laxative ingredients in this particular product happens to be phenolphthalein, a coal tar preparation, and one of the substances most widely used.

MR. LAMB: Have we not a big business here in the West in this particular field? I understand the cascara industry of Oregon and Washington is of considerable importance.

MR. VINCENT: Yes, that is right. You can buy cascara sagrada, or its extract, I believe, in every drug store in the United States, not to mention thousands abroad.

MR. LAMB: That comes from the bark of a tree, does it not?

MR. VINCENT: Yes. It comes from the cascara tree, a tree indigenous to the Pacific Slope. It is found all the way from Northern California to British Columbia, and I understand that efforts to grow the tree in other areas of the world have failed.

MR. LAMB: Perhaps you'd better tell us something about this cascara industry of ours, Mr. Vincent. I doubt if many of our Western people are aware of it. Just how large is it, and how is this cascara harvested?

MR. VINCENT: All right, I had better start with its beginning.

In the exploitation of various mineral waters and proprietary remedies you have doubtless noticed the discovery of the product's potency attributed to the fact that explorers found Indians using either the water or the various ingredients of medicines. Well, here is one instance where the Indians did use the product as a medicinal preparation. It was the Indian who introduced cascara to the white man. That was along about 1865-- first in California.

There are several species of cascara trees and the one first used in medicine is probably not the official species (*Rhamnus Purshiana*) that is today recognized by the U.S. Pharmacopoeia. The cascara tree belongs to the buckthorn family and the name of its bark, "Cascara Sagrada", is a Spanish name meaning "Sacred Bark."

The peeling and collection of the bark is not an organized industry but is done by farmers and woodmen at opportune times. In collecting the bark, the trunk and limbs and sometimes roots of the trees are stripped. The process invariably kills the trees and to date no attempt has been made to replace killed trees.

MR. LAMB: How much dry bark is obtained from a tree?

MR. VINCENT: It varies. Gatherers of this bark don't wait for the trees to mature. I guess the average yield would be from 10 to 15 pounds. Large trees produce as much as 60 to 65 pounds of dry bark.

MR. LAMB: What's the total in trees?

MR. VINCENT: I don't know. In 1924, however, I understand the harvest was about 7,000,000 pounds. I have seen estimates that place the number of trees peeled at 500,000 annually.

MR. LAMB: You were right when you said cathartics were important. Five hundred thousand trees killed annually just to supply cascara bark?

MR. VINCENT: Seems a high price, doesn't it? And the fellow that collects the bark frequently has to hold it for a year or so in order to age it properly for medicinal purposes.

The strips of bark, after being removed from the trees, are usually strung up or spread out to dry. Care is taken not to expose the inner surface of the bark to the sun because that prematurely darkens the color with consequent lowering in market price. After drying, the material is cut or broken into smaller pieces either for or by the crude drug dealers.

Cascara is one of our most valuable laxatives. It differs from other drugs of this character in that continued usage does not necessitate gradually increasing the dosage.

MR. LAMB: It is my impression, Mr. Vincent, that the medical profession looks with some alarm upon the increasing and indiscriminate use of cathartics by the people of the United States. Am I correct in that?

MR. VINCENT: I believe you are--especially as respects the artificial demand created by extravagant advertising. They likewise object to the fraudulent claims of curative value that are made for many laxative preparations. Dr. Durrett, chief of our drug control laboratory, in the Food and Drug Administration, a health authority of national reputation, says: "Cathartics are habit-producing and the claim that laxatives will eliminate waste materials or poison from the body is a false statement because laxatives do not accomplish that purpose. They eliminate waste from the lower intestines only." He further states that laxatives and tonic drugs should not go together, since tonics are supposed to be taken over considerable periods and if they contain laxatives they are apt to produce the laxative habit. If you are taking a tonic, ascertain whether it carries a laxative principle.

MR. LAMB: Mr. Vincent, just what are the laxative drugs or principles which you mention, and what is the difference between a laxative and a cathartic?

MR. VINCENT: Well, "cathartic" is the broad term. It includes the various drugs, chemicals or other agents generally employed. A laxative is a mildly acting cathartic.

In general there are six classes of cathartics:

First, the oils, among which are castor oil, mineral oil, croton oil, and perhaps olive oil. All are recognized by the United States Pharmacopoeia.

Second, the coal tar preparations. The most important is phenolphthalein.

Third, the bulk formers: agar, recognized by the Pharmacopoeia; psyllium seed and bran.

Fourth, the salts: Epsom salts, or magnesium sulphate; Rochelle salts, a mixture of potassium and sodium tartrates; Glauber's salts, or sodium sulphate; sodium phosphate and potassium bitartrate or cream of tartar, all of which are recognized by the Pharmacopoeia.

Fifth, the vegetable drugs, included in which are cascara sagrada, senna, rhubarb, aloes, podophyllum and colocynth-- all are U.S.P.

Sixth, mercurial preparations, including calomel, blue mass, and gray powder. They, too, have U.S.P. recognition.

Certain mineral waters might be included, but I omit them as a class because their laxative effects depend upon one or more of the salts I have named. Too, the majority of mineral waters, of themselves, are only mildly laxative, if at all, unless they have been fortified or concentrated by evaporation. Their labels tell you if either practice was followed.

Still another class of laxative preparations is known by the names of the originators or from the sources from which their formulas were obtained. They are standard preparations or standard formulas. You know some of these by name, and I will tell you what they are. Most widely known is probably Hinckle's pills, containing cascara, aloes, podophyllum, belladonna, strychnine and ginger. Then there is St. Germain Tea, composed of senna, sambucus, potassium bitartrate and certain aromatics. There are Barker's pills, which contain aloes, podophyllum, colocynth, nux vomica, ipecac and hyoscyamus; and Gregory's Powder, composed of rhubarb, magnesium oxide and ginger. You may get those standard preparations under your druggist's own label.

Now, let's discuss the six classes of cathartics previously mentioned. What are the principles that govern their action? You should know, and I am going to tell you. Let's start out with the oils, the first group mentioned. Their actions differ. Castor oil is a simple purgative. Mineral oil, a lubricant, is not absorbed as is olive oil, which affects laxative action only in so far as it escapes digestion and absorption. Croton oil is a very drastic and dangerous cathartic to be used only upon doctor's prescription.

The second class mentioned, the coal tar preparations, includes phenolphthalein. Phenolphthalein is not absorbed into the system and is eliminated through the kidneys and bowels. Its laxative action is caused by increasing the liquid content of the lower bowel.

The third group includes the bulk formers. They are in the nature of demulcents. They should not be used in cases of intestinal irritation or stoppage, and to some children and to some adults may cause excessive intestinal irritation.

The fourth, the salts, owe their cathartic effect to the fact that they interfere with water absorption. Where inflammation exists their use is questionable.

The fifth, or vegetable class, owe their effect to irritation which results in peristalsis. Of these the emodin-bearing drugs, included in which are the aloes, cascara and senna, are the milder of the irritants and the more commonly used. The more powerful include colocynth, podophyllum and jalap.

The sixth, or mercurial group likewise act by irritation, exciting peristalsis and lessening fluid absorption. They are rather dangerous. You know the physician usually administers calomel in rather small amount. Calomel is mercurous chloride, while mercuric chloride is the antiseptic-- perhaps you know it as corrosive sublimate-- with which you are familiar.

The digestive juices, acting upon the mercurous salt, convert it slowly into mercuric salt. The irritation resulting from the increased peristalsis caused by the system's effort to eliminate the poison produced explains the action of this product.

Now, label readers, you can not from reading labels get all needed information about those products. You can, however, get some information about many that are offered you. Some labels indicate the products to be "Purely Vegetable." Therefore, you know they will contain no phenolphthalein, calomel or salts. If the label states "Contains no mineral substance," it must contain no salts or mercury compounds. If it bears the letters "U.S.P." or "N.F.", it is one of the products described in the United States Pharmacopoeia or the National Formulary and its composition can be learned by referring to your druggist's copy of those books. Some people prefer phenolphthalein preparations and the label or the advertising matter sometimes tells you if you are getting such products.

Just one further word. Medicated biscuits, which are distributed as laxative preparations, likewise chewing gum and other confections, sometimes have phenolphthalein or other laxative substance incorporated therein. Before giving your children such products, exploited as beneficial in cases of constipation, I would suggest you read the labels carefully. Some preparations with coined names, perhaps indicating a chocolate or fruit product, for example: "Figettes," "Prunelots," or "Olive Lax," will usually be found to declare somewhere in their labeling the presence of the laxative ingredients. It is not the fruit or flavor to which they owe their efficacy. To read their labels will make you more discriminating buyers. Your child may get but one cracker or confection where otherwise it might have gotten six. Remember, the experts tell us that children, with proper diet and exercise, should not need laxatives.

Next week, --- tricky labels. I have a story that will surprise you.

